

External Review of Acacia Program

September 2010

This findings brief is based on the reports “Acacia 2006-2010 Final Report” by the Acacia Program, April 2010, and “External Review of the IDRC Acacia Program – Final Report” by Daniel Paré, Zenda Ofir, and Jonathan Miller with support from Emily Taylor, August 2010. The full reports are available from IDRC's Evaluation Unit.

1. Overview of the Acacia Program

The Acacia program is in its third prospectus period (2006-2011). The program is structured around three themes: improving economic development and opportunities (how information and communication technologies broadly influence social and economic development in Africa); enhancing social service delivery (how information and communication technologies help African governments be more effective in the delivery of citizens' services); and, empowering citizens (how the use of information and communication technologies can reinforce citizens' capabilities).

The Acacia III budget of \$64.9m is spread across 161 projects. Over 80 percent of the budget is applied to some 13 networks, with allocations averaging \$4.3m, but ranging from \$707,000 to \$8m. Allocations to individual projects average approximately \$400,000 and vary widely, from a few thousand dollars to support occasional seminars, to over \$2.5m for ongoing support to some networks.

The Acacia Program Initiative's mission is to “support research on information and communication technologies that improve livelihood opportunities, enhance social service delivery, and empower citizens while building the capacity of African researchers and research networks.” It has four objectives:

- Sustained policy dialogue
- Thriving research networks
- Enhanced research capacity in information and communication technologies for development
- Increased social and technical innovations in information and communication technologies

2. Methodology

External reviews of programs at the Centre begin with the program analyzing its own achievements, followed by an assessment of program performance by an external review panel made up of independent experts. The program's final prospectus report outlines the program's strategy and evolution, key research findings, major program outcomes and the main lessons drawn from the program's experiences. The external review panel report judges: the appropriateness of the prospectus implementation; the quality of research

outputs; and the relevance, value and significance of the program outcomes. The external review panel report also identifies key issues for consideration.

The methodology employed by the external review panel was guided by an evaluation matrix consisting of 19 questions. A mixed methods approach using different sources was employed for data collection in order to enable adequate triangulation for credibility of the findings. Key components were (i) a document review of program and selected project documents; (ii) a synthesis of rolling Project Completion Reports (rPCRs) to obtain aggregated information on completed projects above \$150 000; (iii) an on-line survey distributed to 176 potential respondents with 36 responses received; (iv) a total of 40 purposefully selected key informants; (v) an assessment of the quality of the research outputs/publications of 34 projects spanning the three thematic pillars of the Acacia program; and, (vi) a citation analysis of Acacia publications.

3. Research Findings

Acacia provided an overview of research findings emanating from projects supported in its three themes. A few examples are given for each.

3.1 Research on infrastructure, policy indicators, and economic opportunities concluded that:

- The opening of telecommunications markets, through effectively regulated competition, has done more to meet individuals' demand for access to telecommunications than any other universal service policy instrument (Esselaar, Gillwald, & Stork, 2007). In addition to regulated competition market-players were able to reduce costs by initiatives such as the elimination of roaming charges among East African countries (Esselaar, Gillwald, & Stork, 2007).
- Although Africa's divide of mobile voice services is narrowing, Acacia-supported networks' research indicates that the continent's divide, in terms of Internet access, is widening. The increased divide could be attributed to dramatic change in the African countries' telecommunications environments. Fewer than 5% of African households use the Internet (Gillwald & Stork, 2008). With a few exceptions (such as the 15% household internet access in South Africa), the majority of the households surveyed go to cybercafés to use the Internet.

3.2 On social service delivery and economic development, research found that:

- Using electronic patient records to monitor HIV/AIDS patients on anti-retroviral drugs, doctors in the Free State Province of South Africa were able to establish the drug's effectiveness. This study illustrated that patients on treatment had an 87% chance of survival compared with patients that were on a waiting list to get treatment (Fairall, et al., 2008).
- A randomized trial, which evaluated the impact of mobile phones linking farmers to extension support around adoption and marketing of export crops, found that early adopters of information improved their income by 32% (Ashraf, Gine, & Karlan, 2009). This improved income came from lowering

their transaction, search, screening, and negotiation costs, and also from lowering costs of monitoring and enforcing terms of agreement (Ashraf, Gine, & Karlan, 2009). These same farmers, however, lost their gains when European health regulations on imported fresh produce were revised and they needed to reorganize following this market shock.

3.3 On people's empowerment, research demonstrated that:

- In order for Africans to match their peers' demand for academic information in other continents, increased bandwidth and lower connectivity costs are imperative for the continent's universities. West Africa's higher education institutes, surveyed in 2008, used 74 Mbps average of total inbound bandwidth - slightly more than a Canadian household - which is far from the ideal requirements of 1156 Mbps (or 15 times existing provision) for an entire campus (Hamilton, et al., 2008). With nearly 2.2 million staff and students in this region, the average bandwidth would be 0.37 Kbps per head, mainly via satellite connection. The average current price is USD2,330 per Mbps per month. Prices need to fall to USD120 to meet their requirement in 2013 within the given West African universities budgets (Hamilton, et al., 2008).

4. External Review Panel Findings

Overall the external review panel concluded that working in a field that is characterized by rapid change, and in a region largely defined by its limited human and financial resources, Acacia has successfully carved out a unique and enviable niche. Through the use of a network modality it is building a cumulative tradition of quality research that is receiving international attention. Moreover, many of the outcomes of this work are resulting in tangible benefits on the ground in Africa.

4.1 Prospectus Implementation

The external review panel's analysis of Acacia's implementation highlighted that the success of the program was determined in large part by the rare combination of several key factors, in particular:

- The implementation of Acacia went largely according to plan. Where changes were made, these were well reasoned and justified.
- The well-conceived and defensible logic and priorities in the Acacia strategy, its division into sub-themes and networks with common objectives, and its well-articulated operational principles—which the Acacia team closely followed—laid the foundation for its coherence, successful implementation and achievement of expected outcomes.
- The committed, interactive and adaptive (flexible, based on learning) management style of the Acacia team helped to overcome or avoid potential management risks and tensions.
- Acacia's willingness to take risks by working in under-researched areas and its commitment to understanding how information and communication technologies can contribute to economic, political, and social development are widely recognized as a key strength.

- Program coherence was facilitated by the well-coordinated, stable team of experienced and specialized Program Officers and network leaders, a shared understanding between them of Acacia's strategy and operational principles and a good Program Officer-to-budget ratio that facilitates their ongoing engagement in shaping the areas of work.

4.2 Research Quality

In terms of the quality of Acacia-supported research publications, the external review panel concluded that:

- Acacia addressed pressing information and communication technologies for development issues in need of research.
- It was appropriate for Acacia to operate without adhering to fixed/codified or an overly academic definition of quality research.
- Publications emanating from Acacia-supported research were generally of good to high quality and contributed to filling important gaps in knowledge at both applied and theoretical levels of information and communication technologies for development-related issues, as well as providing African authors with a growing voice in the information and communication technologies for development domain.
- The research outputs reported by Acacia were significant, but the efficacy of its influencing strategies has been limited.

4.3 Outcomes

Acacia highlighted five program-level outcomes it considered most significant:

- Fostering ongoing, robust policy dialogue;
- Increasing research capacity in information and communication technologies for development;
- Contributing to a formal body of knowledge in information and communication technologies for development;
- Stimulating social and technological innovations in information and communication technologies; and,
- Applying meaningful gender analysis.

The external review panel came to the following conclusions about these outcomes:

4.3.1 Within the context of information and communication technologies for development in Africa, especially the dramatic growth in mobile telephony and the imminent rollout of far greater bandwidth in many African countries, the external review panel considers the body of outcomes emanating from Acacia to be highly relevant and valuable.

Acacia-supported networks and projects have had, and are having, important direct and indirect policy influence. There are several examples to support the claim that this policy outcome has been largely realized. The Research ICT Africa (RIA) network for instance, carried out ground-breaking research into mobile interconnection rates in Namibia and played a pivotal role in influencing

the Namibian Communications Commission's (NCC) decision to cut those rates by 50 percent.

However, there is a need for caution in generalizing this conclusion across the broad spectrum of activities supported by Acacia. Indeed, the external review panel's analysis suggests a notable degree of network- and project-level variance in the extent to which this policy outcome has been met. Given that commercial and political issues constrain influence, this variance appears to be linked in part to types of topics addressed by the networks and projects. The variance may also be due, in part, to what appear to be limitations in effectively communicating research findings to target audiences and intended users, as well as the blurred line between development research projects and projects that have human development objectives with a research component.

Another desired sub-outcome of the policy dialogue objective, set out in the 2006-2011 Prospectus, was "fostering municipal-level champions to facilitate information and communication technologies-enabled delivery of local-government services allowing for citizen e-participation." Evidence of the successful realization of this goal can be seen in the eFez project, which helped a number of municipalities in Morocco to successfully launch electronic civil registration processes.

4.3.2 Acacia's network modality has played a crucial role in mitigating the effects of the limited—and often isolated—cadre of researchers in Africa, as well as in extending timeframes characteristic of effective research. Examples include: supporting some 50 diploma, masters and PhD students across several networks through the Acacia Fellowship Program with the University of Nairobi; and making public the African Copyright and Access to Knowledge network methodology for researching copyright challenges for educational materials.

4.3.3 Acacia has made an important contribution to the body of knowledge in information and communication technologies for development through support for: greater participation by representatives of African research networks in global fora; face-to-face intra-regional knowledge exchanges on thematic research areas; expanding existing thematic research networks to more African countries; and, incorporating information and communication technologies for development-related research and programming into African universities.

An important component of contributing to the formal body of knowledge in information and communication technologies for development is ensuring that researchers can access information in the language of their choice. In line with this, the program's final prospectus report notes that Acacia-supported projects contributed to an increase in the number and quality of information and communication technologies for development-related scholarly publications in French. The external review panel notes, however, that, while quantitatively Acacia has helped support the publication of more French language information

and communication technologies for development publications/scholarship, the bulk of this output has been at the local in-country level. As such, it is very difficult to assess the ‘significance’ of the contribution this work has made to the body of domestic and global knowledge in information and communication technologies for development.

Another facet of Acacia’s contribution to the formal body of knowledge in information and communication technologies for development that was not reported in the final prospectus report but which is noteworthy pertains to increasing access to, and use of, on-line scientific publications in Africa.

4.3.4 Acacia networks and projects are fostering social and technological innovations that, in turn, are contributing to information and communication technologies usage in a variety of contexts. Examples include new, affordable, African-developed, low-cost technologies that improved learning environments and educational practices by providing better access to educational content and resources. While the examples are illustrative of the types of potential benefits arising from innovative information and communication technologies-based initiatives at the local level, the extent to which these types of benefits can be successfully scaled up and sustained is not clear nor is the extent of usage/uptake or wealth creation of these innovations clear.

4.3.5 The external review panel commends the contribution Acacia—one of the few players in the field—is making by actively pursuing research into gender and information and communication technologies for development. For example, the Gender Research in Africa into ICTs for Empowerment (GRACE) network was formed in 2005. It is providing training, guidelines and opportunities to publish, thus developing a new cadre of researchers in the field of gender and information and communication technologies, as exemplified in the 2009 book: *African Women & ICTs. Investigating gender, knowledge and empowerment*. This book is the most visible and applauded GRACE product to date. Both Acacia and the external review panel noted, however, that efforts to mainstream gender more broadly in all Acacia projects have met with limited success.

5. Issues for Consideration

The external review panel identified four challenges arising from how Acacia manages its streams of knowledge, and highlighted what IDRC must contend with if it is to successfully capitalize on the fifteen years of expertise and knowledge established through the Acacia program.

5.1 Institute a program-wide monitoring and evaluation framework.

The absence of a program-wide monitoring and evaluation framework based on the prospectus has limited Acacia’s ability to adequately reflect upon and report on its experience as a research entity.

5.2 Apply ICT4D lessons learned as information and communication technologies for development is mainstreamed.

There is clearly an opportunity for members of the Acacia team to draw upon the program's expertise, approach and lessons learned.

5.3 Extract, synthesise, document and disseminate lessons learned in Africa.

Acacia has accumulated unique operational knowledge including important principles about how to design, execute, learn from and evaluate projects in the information and communication technologies for development field, specifically in Africa. The Acacia program team should therefore be encouraged and given the time to systematically extract, document, and engage in targeted dissemination.

5.4 Balance the emphasis on research outcomes with an emphasis on communicating with and influencing policymakers.

Evaluation Unit